



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,588	09/02/2004	Hiroshi Satani	10873.1529USWO	1424
53148	7590	09/19/2006	EXAMINER	
HAMRE, SCHUMANN, MUELLER & LARSON P.C.			ROY, SIKHA	
P.O. BOX 2902-0902			ART UNIT	
MINNEAPOLIS, MN 55402			PAPER NUMBER	
			2879	

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

RD

Office Action Summary	Application No. 10/506,588	Applicant(s) SATANI, HIROSHI	
	Examiner Sikha Roy	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>0904</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 09129376 to Sakai et al.(of record).

Regarding claim 1 Sakai discloses (English translation para [0008], [0015]) an organic EL device using a transparent resin substrate with a gas-barrier film containing silicon oxide, an amorphous oxide and at least two kinds of oxides of titanium oxide and magnesium oxide, formed on the substrate.

Regarding claim 2 Sakai discloses the two kinds of oxides are a combination of an oxide having large atomic radius (titanium oxide) and an oxide of element having small atomic radius (magnesium oxide). The examiner notes that titanium oxide is disclosed by the applicant as one with large atomic radius and hence it is inherent that titanium oxide has large atomic radius and magnesium oxide as disclosed by the applicant inherently has small atomic radius.

Regarding claim 3 Sakai discloses (para [0004]) the substrate is made of plastic (thermoplastics).

Regarding claim 4 Sakai discloses the plastic is at least one resin selected from polyethylene terephthalate resin.

Claim 5 essentially recites the method for producing an organic EL device having the same limitations as of the device in claim 1 and hence is rejected for the same reason.

Claims 6-8 essentially recites the method with same limitations as in claims 2-4 respectively and hence are rejected for the same reason.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 09129376 to Sakai et al., and further in view of U.S. Patent 6,749,940 to Terasaki et al.

Regarding claim 9 Sakai discloses the method of producing an organic EL device using a substrate with a gas-barrier film comprising forming an inorganic film on the plastic substrate the inorganic film containing amorphous oxide (silicon oxide) and at least two kinds of oxide titanium oxide and magnesium oxide on the surface of the substrate.

Sakai is silent about the gas-barrier film subjected to heat –treatment.

Terasaki in same filed of endeavor discloses (column 4 lines 20-23) a method of preparing a moisture-proof multilayer film which after formation is subjected to heat treatment (between 140° and 55°C for 10 hours). Terasaki teaches (column 2 lines 50-56) the heat treatment improves the moistureproofness of the film.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to have the gas-barrier film of Sakai undergo heat treatment as suggested by Terasaki for enhancing the moisture-proofness of the film

Regarding claim 9 Sakai discloses the temperature of formation of the gas-barrier film should be less than the glass transition temperature of the substrate for preventing deformation of the substrate. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the temperature of heat-treatment of the film less than the glass transition temperature of the substrate to prevent deformation of the substrate and also above the temperature of film-formation so that the film can be coated on the substrate.

Claims 11-13 essentially recite the same limitations as of claims 2-4 respectively and hence are rejected for the same reasons (see rejection of claims 2-4).

Art Unit: 2879

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sikha Roy

Sikha Roy
Patent Examiner
Art Unit 2879